



USE THE TRANSPORTATION MODEL IN THE DISTRIBUTION OF POULTRY PRODUCTION UNDER ALTERNATIVE SCENARIOS OF PRODUCTION

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ABSTRACT

The poultry production sector occupies an important position among the animal production sectors, as one of the main sources of animal protein in Egypt, with a value of about 32.4 billion pounds, representing about 28.9 % of the value of animal production in 2014. This is due to the features of this sector of the short production cycle, the speed of capital turnover, as well as the high economic return.

The problem of the study is the large variation in poultry prices between production areas and consumption areas, indicating an inefficient transport system, which is considered one of the most important marketing services for this fast food commodity death under the prevailing climatic conditions, thus ensuring that they reach the consumer as quickly as possible.

The study aimed is to propose the best transportation model to transport poultry production from surplus with poultry to those of shortage with poultry governorates, to reach the shortest distance marketing to minimize transport costs and time.

The study used the transportation problem as one of the operation research tools to rationalize the poultry redistribution between surplus and shortage governorates during three scenarios.

The study showed under the assumption of the first scenario (production and consumption are expected firming), that the expected quantity to be transported to the shortage governorates to be about 817.4 thousand tons represent about 25.3%

of the total production of the republic during the year 2020, Under the proposed model, the least cost of the transfer is estimated at 69.9 million units/km / ton, are estimated quantities transported about 2.5 million tons, represent about 78.1% of the total production at the level of the republic of that model estimated at 3.2 million tons during 2020.

The study also showed that under the assumptions the second scenario (lower production 10% and consumption firming), that the expected quantity to be transported to the shortage governorates to be about 850.7 thousand tons represent about 29.2% of the total production of the republic, Under the proposed model, the least cost of the transfer is estimated at 76.9 million units / km / ton, are estimated quantities transported about 2.2 million tons, represent about 75.8% of the total production at the level of the republic of that model estimated at 2.9 million tons. Under the assumption of the third scenario (Production firming and lower consumption 10%) that the expected quantity to be transported to the shortage governorates to be about 702.3 thousand tons represent about 21.7% of the total production of the republic, Under the proposed model, the least cost of the transfer is estimated at 57.3 million units / km / ton, are estimated quantities transported about 2.5 million tons, represent about 78.1% of the total production at the level of the republic of that model estimated at 3.2 million tons.

The study recommended the use of scientific methods to rationalize the transport process between the governorates thus achieving cost and time to transfer at least on the side and the other side reduce wastage circulation which serves to provide the appropriate poultry prices.

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